

**REMARKS**

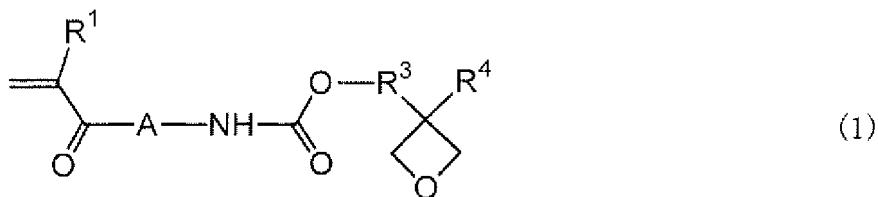
Claims 1-6 are all the claims pending in the application.

In the Office Action Summary, Applicants' claim for priority under 35 U.S.C. §119 has been acknowledged, however, it is indicated that "All" and "Some" of the certified copies of the priority documents have been received, and box 3 in the Priority section has not been checked. Applicants note that in the Notice of Acceptance mailed December 11, 2006, it was indicated that the Patent Office received the certified copy of the priority document. Accordingly, clarification in the next Office communication is respectfully requested.

**Response to Rejection of Claims 1-4 under 35 U.S.C. §103(a)  
over Mikito and Hiwara**

Referring to page 2 of the Office Action, claims 1-4 have been rejected under 35 U.S.C. §103(a), as allegedly being unpatentable over JP 11246541 to Mikito et al. ("Mikito") in view of U.S. Patent No. 6,166,100 to Hiwara et al., ("Hiwara"). Applicants traverse for the following reasons.

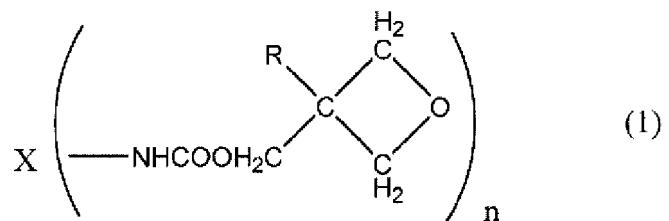
Independent Claim 1 is directed to an oxetane compound containing a (meth)acryloyl group, which is represented by formula (1) below



wherein R<sup>1</sup> represents a hydrogen atom or a methyl group and A represents -OR<sup>2</sup>- or a bond. R<sup>2</sup> represents a divalent hydrocarbon group which may contain an oxygen atom in the main chain,

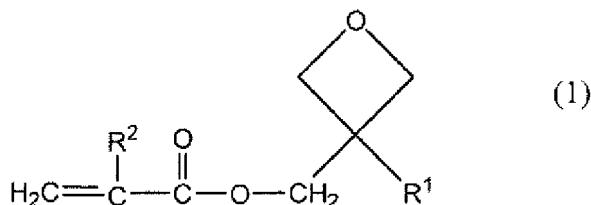
$R^3$  represents a linear or branched alkylene group having 1 to 6 carbon atoms, and  $R^4$  represents a linear or branched alkyl group having 1 to 6 carbon atoms.

Mikito generally discloses a multifunctional oxtetane having a structure represented by Formula (1):



where R can be H or 1-6C alkyl, n is 2 or 3, and X is a bifunctional or three-functional aromatic residue or a bifunctional aliphatic residue. Mikito discloses that the above compound is obtained by reacting hydroxymethylloxetane with a multifunctional isocyanate (see Mikito at [0012]).

Hiwara discloses a polymerizable unsaturated monomer, which a component of a cationically polymerizable pigmented composition showing properties in pigment dispersibility, flowability, color development properties and curing properties, represented by Formula (1):



where  $R^1$  represents an alkyl group having 1-6 carbon atoms, and  $R^2$  represents a hydrogen atom or methyl group.

A conventional oxetane compound having both an oxetanyl group and a (meth)acryl group has poor adhesiveness to other polymers or materials and, therefore, the compound is not very practical (see for instance, WO 2005/075445 at page 2, line 30 to page 3, line 7 (attached)).

The novel compounds as claimed in the present application were developed to solve this problem and provide a compound that has good adhesiveness to other polymers or materials, and furthermore, provide a compound having excellent copolymerizability with other compounds containing a (meth)acyloyl group. The compound suggested by Mikito and Hiwara, in combination, does not teach or suggest such a compound with these properties.

An oxetane compound encompassed by the claims of the present application may be represented by formula (1), as recited in claim 1, wherein an (meth)acryloyl group (which imparts copolymerizability), urethane bond (which imparts adhesiveness) and an oxetanyl group (imparting cationical polymerizability) are bonded in this order.

The Examiner allegedly states that it would have been obvious to one of ordinary skill in the art to modify Mikito to obtain properties such as good dispersibility and flow properties in light of the teaching of Hiwara. However, because neither Mikito or Hiwara discloses the object of the present invention, those skilled in the art would not have been motivated to make the compound of the present invention. In any event, even assuming that one having skill would be motivated to combine the teachings of Mikito and Hiwara, the compound embraced by claims of the present application could not be obtained.

In view of the above, it is submitted that claims 1-4 are patentable over Mikito and Hiwara, and the rejection under 35 U.S.C. § 103 is respectfully requested.

**Response to Rejection of Claims 5-6 under 35 U.S.C. §103(a) over Mikito**

Referring to page 3 of the Office Action, “claims 5 and 5” have been rejected under 35 U.S.C. §103(a), as allegedly being unpatentable over Mikito. At the outset, Applicants note that “claims 5 and 5” have been rejected, however, Applicants believe this to be a typographical

mistake. In view of the Office Action Summary, Applicants presume claims 5 and 6 have been rejected, and respond in light of this presumption. Applicants traverse for the following reasons.

Mikito discloses a multifunctional oxetane compound having a structure of -NHCOO-, the compound of which may be obtained by reacting hydroxyl group of hydroxymethyl oxetane with the isocyanate group of multifunctional isocyanate. However, without the motivation to solve the problem of poor adhesiveness to other polymers or materials, one having skill in the art would not have been motivated to produce an oxetane compound of present claims 5 and 6, wherein an isocyanate compound containing a (meth)acryloyl group is reacted with an oxetane compound containing a hydroxyl group. That is, Mikito fails to disclose or suggest obtaining a compound which is excellent in copolymerizability with other compounds containing (meth)acryloyl group by bonding a (meth)acryloyl group to the compound. Accordingly, as Mikito fails to disclose or suggest the compounds as presently claimed, Mikito fails to teach or suggest claims 5 and 6 of the present application.

Thus, it is submitted that claims 5-6 are patentable over Mikito, and the rejection under 35 U.S.C. § 103 is respectfully requested.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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